4-12-2013

IPFW Mobile Application

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IPFW Mobile Application Development

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Abstract

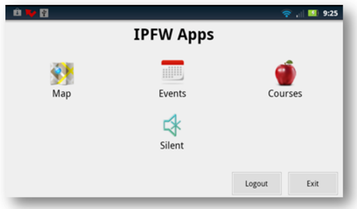
With the advancement of handheld computing devices, mobile application development is becoming a popular and important subject among computer scientists. Unlike other computing hardware, the mobile device, either a smart phone or tablet, supports various technologies such as GPS, accelerometer, Bluetooth, camera, sensors, etc. These unique features provide users with many conveniences, but also introduce new challenges in application development. The goal of this project was developing mobile applications to provide existing functionality via handheld devices and introduce new services by utilizing sensors on mobile devices.

Purpose

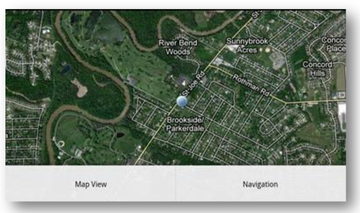
An application for IPFW was implemented in order to gain experience in mobile application development and enhance my career growth. The implemented application offers a variety of services for IPFW students, faculty, and visitors. The application is composed of several mini applications that offer a specific service. The services include: a map application to help users navigate campus by providing building information and walking/driving directions, an events application that lists the upcoming events at IPFW, a course schedule application that displays available courses and information about each course, and a service that prevents the user's phone from ringing while on campus.

Results

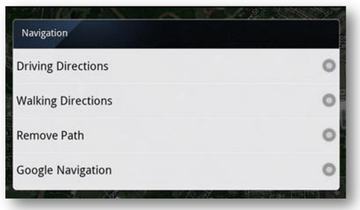
Login Screen



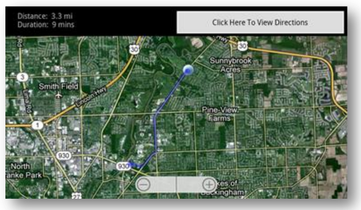
App Selection Screen



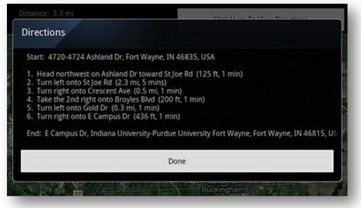
Map App



Navigation Menu



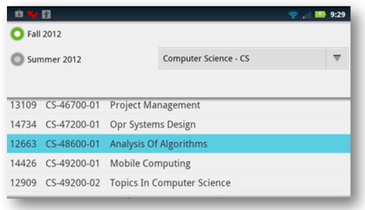
Driving Route to IPFW



Driving Directions to IPFW

Building Information

Walking Route to Building



Courses App

Course Information

Events App

Conclusion

The application was fully implemented over the summer of 2012. The introduction of mobile applications to existing IPFW services will provide many benefits to our students, faculty, and guests. Considerable research was necessary in several areas including: mobile application development, interface design, and server technologies. There are many other features that should be implemented in the future such as a calendar that can sync with the users Blackboard account. The system is designed to incorporate new features easily to the existing services.

Acknowledgments

I would like to thank the Office of Research, Engagement, and Sponsored Programs for this opportunity and Dr. Beomjin Kim, Professor of Computer Science, for his assistance and guidance.